REMARKS

Claims 1-20 remain in this application. Claims 1, 2, 3, 4, 8, 9, and 19 are currently being amended.

The undersigned gratefully acknowledges the acknowledgement of the IDS filed on March 29, 2002, and the Supplemental IDS filed on October 15, 2002.

The disclosure was objected to in the office action because the term PLC based as located on page 6 was unfamiliar. PLC based is commonly known in the art, PLC stands for "programmable logic controller." The specification has been amended in order to clarify the specification that PLC stands for, "programmable logic controller." A programmable controller has a definition of "a control device, normally used in industrial control applications, that employs the hardware architecture of a computer and a relay ladder diagram language." McGraw Hill Dictionary of Scientific and Technical Terms 5th Edition, 1986, page 1586. Programmable logic controller in the dictionary indicates to see programmable controllers. In addition, a page from Manufacturing Engineering and Technology by Kalpakjian and Schmid is enclosed.

The drawings were objected to for failure to comply with 37 C.F.R. §1.84 (p)(5) because they failed to include reference number 14 for the reversible pump/turbine. The examiner is requested to refer to FIG. 1 as filed wherein the reversal pump and turbine is shown. A copy is enclosed highlighting the reference numeral. The formal figure of FIG. 1 dropped the reference numeral and a substitute formal FIG. 1 is enclosed.

Claims 8-11 were objected to under 35 U.S.C.§ 112 first paragraph, for failing to comply with the enablement requirement. In particular, it was stated in the office action that it is unclear how or where there is a limited lateral movement within the support chamber 8, as indicated in FIG. 2, and recited in the claims. In addition, it is stated in the office action that a relationship between the support chambers and the foundation and lateral displacement restraint system in FIG. 3 is not clearly described or shown.

With respect to the question on the limited lateral movement within support chamber 8, as shown in FIG. 2 and stated in the specification, the support chamber 8 has a pressure plate 24 which is sealed to the internal walls of the chamber. The walls prevent lateral movement of the cylinder pressure plate 24. The pressure plate 24 carries the bearing pad 26.

The support chambers as described in the specification are used to raise and lower the structure, such as a building structure. The limited displacement lateral restraint system as described in the specification guides the movement of the structure, such as a building structure. The support chambers and the limited displacement lateral restraint system were in conjunction in a preferred embodiment in the moving of the building structure above the foundation.

Furthermore, with respect to the relationship between the support chambers and the foundation and the limited displacement lateral restraint system of FIG. 3, claim 9 has been amended to further define that the lateral restraint system works in conjunction with the hydraulic support cylinder system to allow vertical displacement of the building while eliminating relative horizontal movement.

Claims 2, 5, 8-11, and 19 were objected to under 35 U.S.C. §112 second paragraph, for being indefinite for failure to particularly point out and distinctly claim the subject matter which the applicant regards as his invention. In particular, the claims were objected to for lack of antecedent basis or indefinite because of the use of an "or" phrase. Claims 2, 5, 10, and 11 were objected to for being incomplete for omitting essential structural cooperative relationships of elements such as a gap between the natural structural connections. Claims 2, 5, 10, and 11 have been amended to clarify the invention and include the structural relationship. The term "suitable" in claims 9 and 19 was objected to for being indefinite. The term "suitable" has been eliminated. Claims 8 and 19 have been amended.

Claims 1-21 were provisionally rejected to under the judicially created doctrine of obviousness type double patenting as being unpatentable over claims 12-14, 3, 17-23, and 27-36, of co-pending application no. 10/183,061. The two applications list the same inventor and have the same ownership.

Claims 1, 4, and 6 were rejected to as being anticipated by U.S. Patent No. 4,443,707. Scieri, U.S. Patent No. 4,443,707, is cited in the Office Action for providing building 16, chamber 12, valve 18, turbine 22, reserve 14, pump 34, and controllers 26-28. With respect to claim 4, the office action states that the language to elevated buildings is its intended use and fails structurally, as defined from Scieri.

Claim 1 has been amended to define the hydraulic support chamber having a vertical connector for lifting a building, to create pressure in the chamber. Unlike Scieri,

the instant invention works where there is no significant land areas which are high enough and large enough to act as elevated reservoirs.

The instant inventions uses a fluid (oil, water, or other) to elevate a large, heavy structure which already has a utility (such as a multi-level parking lot, commercial building, etc.) thus creating high fluid pressures at the plurality of support cylinders. The system can be designed for an operating pressure of more than 2000 psi which would then allow a relatively small volume of fluid to be passed through a "hydraulic pump-motor" to produce the same amount of power (kilowatts) that would require at least an elevation change of 5,000 feet. The weight of the structure eliminates the need for very high elevation of a fluid, such as in Scieri. In a preferred embodiment of the instant invention, the building would only need to be elevated 10-20 feet. The potential energy is thus the total weight of the structure multiplied by the height to which it has been elevated, typically only 10-20 feet. The only volume of hydraulic fluid required is that required to raise all the connecting link of the chamber (pistons) to the elevated structure height.

Scieri does not anticipate the instant invention. There is no suggestion of a structure to exert pressure on the reservoir (chamber) 12. Claim 1 is allowable. Claims 2-7 are dependent on claim 1 and are allowable, at least, for the reasons cited above.

With the claims amended to overcome the objections listed above, claims 8-20 are likewise allowable.

CONCLUSION

In view of the amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone call would expedite the prosecution of this case, the Examiner is invited to call the undersigned at (508) 416-2473.

Respectfully submitted,
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38.2.6 Programmable Controllers

The control of a manufacturing process in the proper sequence, especially one involving groups of machines and material-handling equipment, has traditionally been performed by timers, switches, relays, counters, and similar hardwired devices based on mechanical, electromechanical, and pneumatic principles. Beginning in 1968, **programmable logic controllers (PLC**—also called PC, but not to be confused with personal computer) were introduced to replace these hardwired devices.

The programmable logic controller has been defined by the National Electrical Manufacturers Association (NEMA) as "a digitally operating electronic apparatus which uses a programmable memory for the internal storage of instructions for implementing specific functions such as logic, sequencing, timing, counting, and arithmetic to control, through digital or analog input/output modules, various types of machines or processes." The digital computer, which is used to control the functions of a programmable controller, is considered to be within this scope.

Because PLCs eliminate the need for relay control panels, and because they can be reprogrammed and take less space, they have been widely adopted in manufacturing systems and operations. Their basic functions are on–off, motion, sequential operations, and feedback control. PLCs are also used in system control, with high-speed digital-processing and communication capabilities. These controllers perform reliably in industrial environments and improve the overall efficiency of the operation.

PLCs are becoming less popular in new installations, because of advances in numerical-control machines, but they still represent a very large installation base. There is now a growing trend toward using microcomputers instead of PLCs, because they are less expensive, easier to program, and easy to network. This advance has been made possible by the new breeds of "real time" operating systems such as Windows NT and SCADA (supervisory control and data acquisition software).

38.2.7 Total Productive Maintenance (TPM)

The management and maintenance of a wide variety of machines, equipment, and systems are among the important aspects affecting the productivity of a manufacturing organization. The concepts of *total productive maintenance* and **total productive equipment management (TPEM)** are now being advanced.

These concepts include continued analysis of such factors as equipment breakdown and equipment problems, the monitoring and improving of equipment productivity, the implementation of preventive and predictive maintenance, the reduction of setup time, idle time, and cycle time, the full utilization of machinery and equipment and the improvement of their effectiveness, and the reduction of product defects. Teamwork—for example, as implemented by continuous improvement action teams—is an important component of this activity and involves the full cooperation of the machine operators, the maintenance personnel, the engineers, and the management of the organization. (See, also, **kaizen**, Section 36.1.)

38.3 NUMERICAL CONTROL (NC)

Numerical control is a method of controlling the movements of machine components by directly inserting coded instructions, in the form of numbers and letters, into the system. The system automatically interprets these data and converts them to output signals. These signals, in turn, control various machine components—for example, by turning spindles on